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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/881,740

06/18/2001

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10/17/2003

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EXAMINER

HARPER, HOLLY R

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 10/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/881,740

Applicant(s)

KANAZAWA ET AL.

Examiner

Holly R. Harper

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-8,11-14,16-19 and 22-25 is/are rejected.
- 7) ☒ Claim(s) 4,9-10,15,20-21, 26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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## DETAILED ACTION

### *Response to Amendment*

The Amendment, filed on 8/7/2003, has been entered and acknowledged by the Examiner.

Claims 23-26 have been entered.

Claims 1-4, 11-15, and 22 have been amended.

The Title has been amended.

### *Examiner's Note*

In claim 3, 11, and 13, there is a typographical error. The phrase "discharge generate light" should be "discharge generated light".

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 7, 8, 11-13, 18, 19, and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Ha et al. (USPN 6,255,779 B1).

In regard to claim 1, Ha discloses a plasma display panel with a plurality of discharge electrodes (Figure 1, Elements S and C) and arranged on an inner side of a front substrate (Figure 1, Element 1). Each of the discharge electrodes has a bus electrode (Figure 5a, Element 18) and a transparent electrode (Figure 5a, Element 17). The bus electrode is connected to the transparent electrode (Figure 4). Each bus electrode has projections (shielding parts) on the side of the bus electrode projecting into the discharge cell (Figure 4, Element 18). The bus electrode acts as a shield and shields incident light from the exterior.

In regard to claim 2, the Ha reference discloses that the shielding parts are formed in correspondence to regions having low luminescent intensity (Figure 4). These regions exist between parts that discharge generate light (Figure 4, the discharge cell).

In regard to claim 7, the Ha reference discloses that the shielding parts are formed of the same material as the bus electrodes (Figure 4, Element 18).

In regard to claim 8, the Ha reference discloses that the shielding parts are formed integral with the bus electrodes (Figure 4, Element 18).

In regard to claim 11, the Ha reference discloses a plurality of cells is formed along the discharge electrodes neighboring each other (Figure 1). It is well known in the art that color plasma display panels have cells emitting red, green, and blue. The shielding parts (Figure 4, Element 18) are in a position to block discharge-generated visible light from radiating to the exterior and to shield regions having low luminescent intensity (Figure 5a).

In regard to claim 12, the Ha reference discloses a plasma display panel with a plurality of discharge electrodes (Figure 1, Elements S and C) and arranged on an inner side of a front substrate (Figure 1, Element 1). Each of the discharge electrodes has a bus electrode (Figure 5a,

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Element 18) and a transparent electrode (Figure 5a, Element 17). The bus electrode is connected to the transparent electrode (Figure 4). Given enough voltage, the discharge electrodes would be able to discharge on both sides. Each bus electrode has projections (shielding parts) on the side of the bus electrode projecting into the discharge cell (Figure 4, Element 18). The bus electrode acts as a shield and shields incident light from the exterior.

In regard to claim 13, the Ha reference discloses that the bus electrodes are arranged at the outside parts of the transparent electrodes, near the barrier walls (Figure 5a). The bus electrodes therefore correspond to regions of low luminescent intensity between parts that discharge generated light.

In regard to claim 18, the Ha reference discloses that the shielding parts are formed of the same material as the bus electrodes (Figure 4, Element 18).

In regard to claim 19, the Ha reference discloses that the shielding parts are formed integral with the bus electrodes (Figure 4, Element 18).

In regard to claim 22, the Ha reference discloses a plurality of cells is formed along the discharge electrodes neighboring each other (Figure 1). It is well known in the art that color plasma display panels have cells emitting red, green, and blue. The shielding parts (Figure 4, Element 18) are in a position to block discharge-generated visible light from radiating to the exterior and to shield regions having low luminescent intensity (Figure 5a).

3. Claims 3, 5-6, 14, 16-17, and 23-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakahara et al. (USPN 6,531,819 B1).

In regard to claim 3, the Nakahara reference discloses a plasma display panel with a plurality of discharge electrodes (Figure 1, Elements X and Y) on the inner side of a front

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substrate (Figure 1, Element 100). Each of the discharge electrodes has a bus electrode (Figure 1, Element 103) connected to the transparent electrode. The shielding part (Figure 6, Element 4) formed on the transparent electrode (Figure 6, Element 2) shields incident light from the exterior. A rear substrate (Figure 1, Element 101) faces the front substrate with a discharge space (Figure 1, Element 109) between. There is a plurality of address electrodes parallel to each other and in a direction orthogonal to the discharge electrodes (Figure 1, Element 106). Each discharge cell (Figure 1, Element 109) includes a transparent electrode (Figure 6, Element 2) with a narrow projecting part projecting toward the center (Figure 6, Element 2a) and having opposing parts at a tip of the projecting part (Figure 6, Element 2b). The shielding parts are formed on at least one of the opposing parts (Figure 6, Element 4). The shielding parts are formed in regions having low luminescent intensity and existing between parts that discharge generated light (Figure 5).

In regard to claim 5, the Nakahara reference discloses that the shielding parts are formed on the opposing parts, and each of the shielding parts is formed between the rib and the center of the opposing part (Figure 5).

In regard to claim 6, the Nakahara reference discloses that the shielding parts are formed on the opposing parts at the sides closest to the bus electrodes (Figure 6). In this case, the sides of the opposing parts are equally close to the bus electrode.

In regard to claim 14, the Nakahara reference discloses a plasma display panel with a plurality of discharge electrodes (Figure 1, Elements X and Y) on the inner side of a front substrate (Figure 1, Element 100). Each of the discharge electrodes has a bus electrode (Figure 1, Element 103) connected to the transparent electrode. Given enough voltage, the discharge electrodes would be able to discharge on both sides. The shielding part (Figure 6, Element 4)

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formed on the transparent electrode (Figure 6, Element 2) shields incident light from the exterior. A rear substrate (Figure 1, Element 101) faces the front substrate with a discharge space (Figure 1, Element 109) between. There is a plurality of address electrodes parallel to each other and in a direction orthogonal to the discharge electrodes (Figure 1, Element 106). Each discharge cell (Figure 1, Element 109) includes a transparent electrode (Figure 6, Element 2) with a narrow projecting part projecting toward the center (Figure 6, Element 2a) and having opposing parts at a tip of the projecting part (Figure 6, Element 2b). The shielding parts are formed on at least one of the opposing parts (Figure 6, Element 4). The shielding parts are formed in regions having low luminescent intensity and existing between parts that discharge generated light (Figure 5).

In regard to claim 16, the Nakahara reference discloses that the shielding parts are formed on the opposing parts, and each of the shielding parts is formed between the rib and the center of the opposing part (Figure 5).

In regard to claim 17, the Nakahara reference discloses that the shielding parts are formed on the opposing parts at the sides closest to the bus electrodes (Figure 6). In this case, the sides of the opposing parts are equally close to the bus electrode.

In regard to claims 23 and 24, the Nakahara reference discloses that the opposing parts (Figure 6, Element 2b) are wider than the projecting parts (Figure 6, Element 2a).

In regard to claim 25, the Nakahara reference discloses that the plasma display device has opposing front and rear substrates (Figure 1, Elements 1 and 2). The interior surfaces are spaced to define a discharge gap (Figure 1, Element 4). There is an exterior surface of the front substrate that is a display surface (Figure 1, Element 1). A plurality of discharge electrodes (Figure 1, Elements C and S) are arranged on the interior surface of the front substrate. There is

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a transparent electrode (Figure 5a, Element 17) and a bus electrode (Figure 5a, 18). The bus electrode is connected to the transparent electrode (Figure 4). The transparent electrode has opposing parts (Figure 6, Element 2b). Discharge cells are spaced in a longitudinal direction (Figure 1). Each cell has at least one region of high luminescent intensity near the opposing portions of the transparent electrode and regions of lower luminescent intensity within the cell (Figure 1 and 5). A shield part (Figure 6, Element 4) on the transparent electrode is disposed on the side of the bus electrode to shield incident light from the exterior of the panel (Figure 6).

*Allowable Subject Matter*

4. Claims 4, 9-10, 15, 20-21, and 26 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 4, 15, and 26, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claims 4, 15, and 26, and specifically comprising the limitation that the shielding parts are formed on the projecting parts of the transparent electrode.

Regarding claims 9 and 20, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claims 9 and 20, and specifically comprising the limitation that the shielding parts have different areas depending on the luminescent colors of the discharge cells.

Regarding claim 10, claim 10 is allowable for the reasons given in claim 9 because of its dependency status from claim 9.



Regarding claim 21, claim 21 is allowable for the reasons given in claim 20 because of its dependency status from claim 20.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nunomura et al. (USPN 6,348,762) discloses bus and transparent electrodes with projections (Figure 11).

Nunomura (USPN 6,479,932 B1) discloses bus electrodes with protrusions (Figure 8).

### **Contact Information**


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Holly Harper whose telephone number is (703) 305-7908. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel, can be reached on (703) 305-4794. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Holly Harper  
Patent Examiner  
Art Unit 2879



**VIP PATEL  
PRIMARY EXAMINER**